

Amendments to the Claims

1. **(Withdrawn)** An apparatus for forming a security product comprising a printing press and diffraction grating forming means.

2. **(Withdrawn)** An apparatus as claimed in claim 1 wherein the printing press comprises any one or more of a

- a) a feed system;
- b) means to carry an image to be printed;
- c) means to apply an ink to;
- d) means to dry or cure the ink; and
- e) means to carry a printed security product.

3. **(Cancelled)**

4. **(Withdrawn)** An apparatus as claimed in claim 2 wherein the means to carry an image comprises at least one or more cylinders or a plate.

5. **(Cancelled)**

6. **(Withdrawn)** An apparatus as claimed in claim 4 wherein each cylinder carries an engraved image.

7-8. **(Cancelled)**

9. **(Withdrawn)** An apparatus as claimed in claim 1 wherein the printing press comprises in line, an apparatus to transfer the diffraction grating to a substrate.

10. **(Withdrawn)** A method for forming a security product comprising the steps of:

- a) providing a sheet of base material, said sheet having an upper and lower surface and being a component of the security product;
- b) forming a diffraction grating on at least a portion of the upper surface of the base material; and
- c) depositing a metallic ink on at least a portion of the diffraction grating; or
- b) providing a sheet of base material, said sheet having an upper and lower surface;
- c) depositing a metallic ink on at least a portion of the diffraction grating; and
- d) forming a diffraction grating on at least a portion of the metallic ink.

11. **(Currently amended)** A method for forming a holographic diffraction grating on a substrate comprising the steps of:

- a) applying a curable compound to at least a portion of the substrate;
- b) contacting at least a portion of the curable compound with diffraction grating forming means;
- c) curing the curable compound and
- d) depositing a metallic ink on at least a portion of the cured compound, wherein the optical density of metallic ink when deposited is in the range of 0.2 to 0.8.

12. **(Withdrawn)** An in-line method of printing on a substrate using a conventional printing press apparatus together with means for forming a diffraction grating, comprising the steps of:

- a) forming a diffraction grating on a discrete portion of the substrate; and
- b) depositing a metallic ink on at least a portion of the diffraction grating.

13. **(Withdrawn)** A method for forming a holographic diffraction grating as claimed in claim 11 on a substrate comprising the steps of:

- a) depositing on at least a portion of the substrate a composition comprising a metallic ink admixed with a curable compound;

b) forming a diffraction grating on at least a portion of the composition.

14. **(Withdrawn)** A method for forming a holographic diffraction grating comprising the steps of:

- a) providing a sheet of base material;
- b) depositing a release coating to at least a portion of the base material;
- c) depositing a curable compound on at least a portion of the coated base material;
- d) forming a diffraction grating on at least a portion of the curable compound;
- e) depositing a metallic ink on at least a portion of the diffraction grating; and
- f) depositing an adhesive on at least a portion of the metallic ink.

15-18. **(Cancelled)**

19. **(Withdrawn)** A method as claimed in claim 10 wherein the thickness of the metallic ink when deposited on a substrate is sufficiently thin as to permit the transmission of light therethrough.

20. **(Withdrawn)** A method as claimed in claim 19 wherein the percentage of light transmission is at least 30%.

21-22. **(Cancelled)**

23. **(Withdrawn)** A method as claimed in claim 19 wherein the optical density of metallic ink when deposited is in the range of light transmission

24. **(Withdrawn)** A method as claimed in claim 23 wherein the optical density is in the range of 0.2 to 0.8 as measured by a Macbeth densitometer.

25-34. **(Cancelled)**

35. **(Withdrawn)** A method as claimed in claim 12 wherein the step of forming of a diffraction grating on a substrate may comprise depositing a curable composition on at least a portion of the substrate.

36. **(Withdrawn)** A method as claimed in claim 35 wherein the curable composition is a lacquer.

37. **(Cancelled)**

38. **(Withdrawn)** A method as claimed in claim 36 wherein the curable lacquer is cured by means of an ultraviolet (U.V.) light or an electron beam.

39-40. **(Cancelled)**

41. **(Withdrawn)** A method as claimed in claim 35 wherein the diffraction grating is formed on the surface of the curable composition as it is disposed on the substrate.

42-45. **(Cancelled)**

46. **(Withdrawn)** A method as claimed in claim 10, wherein the metallic ink comprises metal pigment particles and a binder.

47. **(Withdrawn)** A method as claimed in claim 46 wherein the pigment particles comprise any one or more selected from the group comprising aluminium, stainless steel, nichrome, gold, silver, platinum and copper.

48. **(Withdrawn)** A method as claimed in claim 47 wherein the thickness of pigment particles is in the range 100 to 500 angstroms.

49. **(Withdrawn)** A method as claimed in claim 48 wherein the thickness of pigment particles is in the range of 190 to 210 angstroms.

50-51. **(Cancelled)**

52. **(Withdrawn)** A hologram obtained using the method of claim 10.

53. **(Previously presented)** A hologram obtained using the method of claim 11.

54. **(Previously presented)** A method as claimed in claim 11, wherein the metallic ink comprises metal pigment particles and a binder.

55. **(Withdrawn)** A method as claimed in claim 46 wherein the pigment particles comprise any one or more selected from the group comprising aluminium, stainless steel, nichrome, gold, silver, platinum and copper.

56. **(Withdrawn)** A method as claimed in claim 47 wherein the thickness of pigment particles is in the range 100 to 500 angstroms.

57. **(Withdrawn)** A method as claimed in claim 48 wherein the thickness of pigment particles is in the range of 190 to 210 angstroms.